# MONTHLY WEATHER REVIEW,

SEPTEMBER, 1873.

## WAR DEPARTMENT,

Office of the Chief Signal Officer,

Telegrans and Reports for the Benefit of Commerce and Agriculture.

## STORMS.

During this month eleven low barometers have crossed the country east of the Rocky Mountains. Map No. 1 shows, approximately, the paths of their centres which have passed over the Lake region in a northeastward or eastward course, excepting the two on the south Atlantic coast. Several of them were remarkably severe over the Upper Lakes, and destructive to shipping.

That of August 30, 31, and September 1, was accompanied by occasional rain and brisk winds over the Northwest, Ohio valley, Lake region, Middle States and New England, the winds increasing to high from Michigan eastward over the Lower Lakes and St. Lawrence valley.

September 2, 3, 4, and 5, by brisk and occasionally high winds and rain from the Northwest eastward over the Lake region, Ohio valley, Middle States and New England. A hurricane was reported as having lasted about one hour on Lake Michigan, and tornadoes in Massachusetts on the 4th; very severe thunder-storms, with high winds in eastern Tennessee on the 3d, and southeastern North Carolina on the 5th.

September 11, 12, and 13, by rain at nearly all of the stations east of the Rocky Mountains; brisk and high winds over the Northwest and Upper Lakes; severe "Norther" Texas on the 13th, heavy snow on Mount Washington on the night of the 14th.

and Upper Lakes; occasional rain over Minnesota, the Lake region and New England.

September 17, 18 and 19, by high winds over the Northwest, Lakes and St. Lawrence valley; by rain from the Northwest eastward over the Lake, Ohio and St. Lawrence valleys, Middle States and New England.

to southeastern Virginia having been very severe on the coast.

September 22 and 23, by brisk winds and heavy rains on the South Atlantic

September 23 and 24, by high winds over the Northwest and Lakes; rain from the Missouri and Ohio valleys to the Lakes and middle and east Atlantic coast. This was the severest storm of the month, especially on the Upper Lakes, whence very heavy gales were reported.

September 25 and 26, by high winds over the Northwest and Upper Lakes, with occasional rain; light snow in Montana on the 26th; heavy gales on the Upper Lakes.

September 27, 28 and 29, by high winds on Lake Ontario and the lower St. Lawrence valley; rain in all sections east of the Rocky Mountains, except the East Gulf States; followed by a severe "norther" in Texas during the night of the 29th and morning of the 30th, and by light snow from northern Minnesota and Dakota northward.

On the 7th. 8th and 9th an area of high barometer extended itself eastward over the Northwest, Lake region, Ohio valley, Middle States and New England, with falling temperature, and with light frost over the Northwest and Upper Lake region.

13th, 14th and 15.—A second, over the same region with quite heavy frost, which was very severe on the morning of the 13th over Dakota, Minnesota and northern portion of the Upper Lake region.

16th and 17th.—A third, over the Northwest, Lakes, Middle States and New England, with frost over the northern portions of these sections.

September 19th, 20th and 21st.—A fourth, from the Northwest over the Lakes, Ohio valley, Middle States and New England, with frost, except probably on the immediate coast.

September 29th and 30th.—A fifth, from the Northwest south and east over the entire country, with low temperature, producing frost over the northern sections.

## TEMPERATURE.

On Map No. 2 will be found a table of the average mean temperature for the different districts for this month. For New England, the South Atlantic States, the Ohio valley and Tennessee, it is the same as that for many years. For the Middle Atlantic and Gulf States and the Lower Lake region, the former is the greater, from 0°.4 to 0°.6. For the Upper Lake region, Minnesota and upper Mississippi and lower Missouri valleys, it is less, from 1°.2 to 2°.5. Compared with the average for the same month of last year, the former is the lower for the stations in all of the districts, except the South Atlantic States, Tennessee and the Ohio valley, where it varies slightly above and below the latter.

## RAIN-FALL.

Map No. 3 gives, approximately, the rain-fall for the various districts east of the Rocky Mountains. A table upon the same shows where there has been the average fall, excess or deficiency.